



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/784,449	02/23/2004	Thomas F. Berkey	C4-1155	8277
26799 7590 03/10/2008 IP LEGAL DEPARTMENT TYCO FIRE & SECURITY SERVICES ONE TOWN CENTER ROAD BOCA RATON, FL 33486			EXAMINER REKSTAD, ERICK J	
			ART UNIT 2621	PAPER NUMBER
			MAIL DATE 03/10/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/784,449

Applicant(s)

BERKEY ET AL.

Examiner

ERICK REKSTAD

Art Unit

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-55 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-55 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 7/19/05 and 9/20/04.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

This is a Non-Final Office Action for Application No. 10/784,449 filed on February 23, 2004.

#### ***Claim Objections***

Claims 11 is objected to because of the following informalities: the claim states "said detector". Claim 1 provides only a "motion detector", therefore the "detector" of claim 11 should be "motion detector" as suggested by claim 42. Appropriate correction is required.

Claims 22 and 54 are objected to because of the following informalities: the claims state "said detector" which should be "said motion detector" as suggest by claim 42. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-5, 7-10, 21, 31-33, 35-41, 51-53 and 55 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 6,215,519 to Nayar et al.

[claims 1, 31, 40]

As shown in Figure 6, Nayar teaches a video surveillance system for performing a method of monitoring a moving object. The system includes a video camera (20) and

Art Unit: 2621

at least one motion detector (10). Nayar teaches the motion detector comprises a lens (110) having a field of view fixedly directed to an area of interest, and an imager (100) for receiving an image through said lens and converting said image to video data (Col 9 Lines 35-37, Col 12 Line 62- Col 13 line 13, Fig. 8). Note, the lens is fixedly directed to an area of interest (Col 3 Lines 17-22, Col 7 Lines 1-7, Col 13 Lines 21-23).

The motion detector is configured to monitor the video data for movement of an object in said field of view and to provide a detector output in response to said movement of said object, said detector output being configured to cause adjustment of at least one operating characteristic of said video camera to target said camera on said object (Col 9 Lines 37-45). Nayar further teaches the image received by the frame grabber has separate color channels (red, green, blue) (Col 10 Lines 36-42). The Applicant's specification defines one visual perception algorithm is color space correction (Bayer to RGB to YUV) (Page 7 Lines 1-12). It would be inherent that Nayar does not perform the visual perception algorithm of color space correction since the motion detection is performed on separate color channels (red, green, blue) and not on a YUV signal.

[claims 3, 33, and 41]

Nayar teaches the use of a wide-angle lens (Col 13 Line 66-Col 14 Line 8).

[claim 4]

Nayar teaches the motion detector fixedly mounted to the video camera (Col 8 Lines 26-29, Fig. 4).

[claims 5 and 33]

Art Unit: 2621

Nayar teaches the use of a ccd (Col 10 Line 56).

[claims 7 and 35]

Nayar teaches the use of a motion detect sequencer configured for monitoring said video data for said movement of said object (Col 9 Lines 40-41, Col 11 Lines 8-18 and Lines 48-66).

[claims 8 and 36]

Nayar further teaches the motion detector comprises a controller for receiving an output of said motion detect sequencer, said controller being configured to provide said detector output (Col 9 Lines 42-45).

[claims 9 and 37]

Nayar teaches the at least one operating characteristic comprises a pan, tilt, or zoom characteristic of the video camera (Col 3 Lines 23-27).

[claims 10 and 38]

Nayar teaches the detector output is provided to modify a pan, tilt and zoom characteristic of the video camera (Col 3 Lines 23-27, Col 9 Lines 40-45).

[claims 21, 39 and 51]

Nayar teaches the imager is a low resolution imager compared to the camera (Col 3 Lines 17-22).

[claim 52]

As shown above for claim 40, Nayar teaches a method for monitoring a moving object. Nayar further teaches the ability to monitor multiple objects (Col 9 Lines 40-55).

[claim 53]

Art Unit: 2621

Nayar further teaches the use of a PTZ scheduling unit which inputs the objects being tracked and provides time sharing capabilities. The output of the PTZ scheduling unit is received by a PTZ driver which provides the commands to the camera in order to spend a predetermined amount of time on each object that is tracked (Col 9 Lines 46-64).

[claim 55]

Nayar teaches the use of a wide-angle lens (Col 13 Line 66-Col 14 Line 8).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 6 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nayar in view of US Patent 6,830,38 to Kajino et al.

[claim 2]

Nayar teaches the system as shown above for claim 1 (Fig. 6). Nayar is silent on the camera comprising a dome.

Kajino teaches a controllable camera comprising a dome (Abstract, Col 9 Lines 22-35). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the controllable camera of Nayar within a dome as Kajino teaches the use of a dome in a preferred embodiment of a controllable camera (Col 9 Lines 22-35).

Art Unit: 2621

[claims 6 and 34]

Nayar teaches the system as shown above for claim 1 (Fig. 6). Nayar further teaches the imager is a ccd as shown above for claim 5 (Col 10 Line 56). Nayar is silent on the use of a cmos imager.

Kajino teaches cmos and ccd imagers may both be used for cameras (Col 5 Lines 3-8). It would have been obvious to one of ordinary skill in the art at the time of the invention to use a cmos instead of a ccd as the imager for Nayar as Kajino teaches cmos and ccd are known imagers for cameras (Col 5 Lines 3-8).

Claims 11-20, 22, 24-30, 42-50 and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nayar as applied to claim 1 above, in view of US Patent Application Publication 2005/0134685 A1 to Egnal et al.

[claims 11, 42 and 54]

As shown above, Nayar teaches the system and method of claims 1, 40 and 52. Nayar further teaches the ability to record to a recording media the video output by the camera (Col 10 Lines 1-9). Nayar teaches the use of such a system for surveillance (Col 1 Lines 14-17). Nayar is silent on a command to record.

Egnal teaches a security system is used to record video from a camera for later viewing (Paragraph [0002]). Egnal further teaches a desired point to record is during a robbery in order to capture high-resolution video of the robber (Paragraph [0003]). Egnal teaches the use of a similar system to Nayar for spotting unusual activity and then using a PTZ camera to zoom in and record recognition and location information (Paragraph [0004]). It would have been obvious to one of ordinary skill in the art at the

Art Unit: 2621

time of the invention to combine an indicator for recording as taught by Egnal with the system of Nayar in order to record recognition and location information of an unusual activity as taught by Egnal (Paragraph [0003]).

[claims 12 and 43]

As shown above for claims 1 and 40, Nayar teaches the system of Figure 6 and method for the system. Nayar is silent on the use of a plurality of motion detectors.

Egnal teaches a similar system to Nayar (Paragraphs [0001], [0006], Fig. 1). Egnal further teaches the use of multiple motion detectors for controlling a slave camera, in order to provide multiple types of cameras for the motion detector (Paragraph [0041]). Egnal further teaches the ability to control a single slave camera by multiple motion detectors in order to provide high resolution images of multiple objects of interest (Paragraph [0077]). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the multiple motion detectors of Egnal with the system of Nayar as Egnal teaches the benefit of using multiple motion detectors for providing multiple objects of interest to a single high resolution slave camera (Paragraph [0077]).

[claims 13 and 44]

Nayar is silent on the video data associated with the motion detectors is time multiplexed.

Egnal teaches the use of multiple motion detectors which work together to provide broader spatial coverage and/or cooperative tracking of targets (Paragraph [0097]). Egnal teaches the video of the motion detectors is time multiplexed (Paragraph



Art Unit: 2621

[0098]). Note, it is viewed by the Examiner that the two motion detectors observing and tracking the same target at the same time is time multiplexed.

[claim 14, 15, 45 and 46]

Egnal further teaches the use of two motion detectors, where one acts as the master and the other acts as a slave. The motion detectors switch roles when an object of interest leaves the viewing area of the slave motion detector (Paragraph [0097]-[0098]). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the motion detectors of Egnal with the system of Nayar in order to provide continued tracking as long as a target is in view for either motion detector (Paragraph [0098]).

[claims 16, 17, 47 and 48]

As shown above, Nayar and Egnal teach the system of claim 12 and method of claim 43. Nayar further teaches the placement of imagers for the motion detector are placed in a circular pattern providing a 360 degree field of view around a camera (Col 14 Lines 9-15, Figs. 4, 15A and 15B). Nayar is silent on each imager being apart of different motion detectors.

As shown in Figure 1, Egnal teaches a similar system to Nayar (Paragraph [0038]). Egnal teaches each motion detector (master camera) comprises an imager and processing units (Paragraph [0059], Fig. 2). Egnal further teaches the use of a plurality of motion detectors used to control a single camera (Paragraph [0077]). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide each imager of Nayar as part of a motion detector as Egnal teaches the use of

Art Unit: 2621

multiple motion detectors for solving the problem of controlling PTZ cameras in the prior art (Paragraph [0003]).

[claims 18, 19, 49 and 50]

As shown above, Nayar and Egnal teach the system of claim 12 and method of claim 43. Nayar further teaches the placement of the camera below the motion detector (Fig. 4). Nayar further teaches the motion detector may be placed in a ring pattern (Col 14 Lines 9-14, Figs. 15A and 15B). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide an annular ring for mounting the motion detectors shown by Nayar in Figures 15A and 15B as such a ring is well known in the art for mounting a plurality of sensors to provide a 360 degree field of view (Official Notice).

[claim 20]

Nayar teaches the controlling of the camera by a motion detector as described in the preferred embodiment of Figure 6. Nayar teaches an alternative embodiment where a human user controls the camera (Col 7 Lines 27-48, Fig. 2). Nayar is silent on the use of a motion detector and Human user for controlling the camera.

Egnal teaches a similar system to Nayar wherein a camera is controlled by a motion detector (Paragraph [0038], Fig. 1). Egnal further teaches the use of a Human user input for controlling a camera when multiple motion detectors are used (Paragraph [0077]). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the Human user input of Egnal with the system of Nayar in order to

Art Unit: 2621

define priority to motion detectors when multiple motion detectors are used, as taught by Egnal (Paragraph [0077]).

[claim 22]

As shown in Figure 6, Nayar teaches a video surveillance system. The system includes a video camera (20) and at least one motion detector (10). Nayar teaches the motion detector comprises a lens (110) having a field of view fixedly directed to an area of interest, and an imager (100) for receiving an image through said lens and converting said image to video data (Col 9 Lines 35-37, Col 12 Line 62- Col 13 line 13, Fig. 8). Note, the lens is fixedly directed to an area of interest (Col 3 Lines 17-22, Col 7 Lines 1-7, Col 13 Lines 21-23).

The motion detector is configured to monitor the video data for movement of an object in said field of view and to provide a detector output in response to said movement of said object, said detector output being configured to cause adjustment of at least one operating characteristic of said video camera to target said camera on said object (Col 9 Lines 37-45). Nayar further teaches the image received by the frame grabber has separate color channels (red, green, blue) (Col 10 Lines 36-42). The Applicant's specification defines one visual perception algorithm is color space correction (Bayer to RGB to YUV) (Page 7 Lines 1-12). It would be inherent that Nayar does not perform the visual perception algorithm of color space correction since the motion detection is performed on separate color channels (red, green, blue) and not on a YUV signal.

Art Unit: 2621

Nayar teaches the at least one operating characteristic comprises a pan, tilt, or zoom characteristic of the video camera and is used to modify a pan tilt and zoom characteristic of the video camera (Col 3 Lines 23-27, Col 9 Lines 40-45).

Nayar further teaches the ability to record to a recording media the video output by the camera (Col 10 Lines 1-9). Nayar teaches the use of such a system for surveillance (Col 1 Lines 14-17). Nayar is silent on a command to record.

Egnal teaches a security system is used to record video from a camera for later viewing (Paragraph [0002]). Egnal further teaches a desired point to record is during a robbery in order to capture high-resolution video of the robber (Paragraph [0003]).

Egnal teaches the use of a similar system to Nayar for spotting unusual activity and then using a PTZ camera to zoom in and record recognition and location information (Paragraph [0004]). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine an indicator for recording as taught by Egnal with the system of Nayar in order to record recognition and location information of an unusual activity as taught by Egnal (Paragraph [0003]).

[claim 24]

Nayar teaches the motion detector fixedly mounted to the video camera (Col 8 Lines 26-29, Fig. 4).

[claim 25]

Nayar teaches the use of a ccd (Col 10 Line 56).

[claim 27]

Art Unit: 2621

Nayar teaches the use of a motion detect sequencer configured for monitoring said video data for said movement of said object (Col 9 Lines 40-41, Col 1.1 Lines 8-18 and Lines 48-66).

[claim 28]

Nayar further teaches the motion detector comprises a controller for receiving an output of said motion detect sequencer, said controller being configured to provide said detector output (Col 9 Lines 42-45).

[claim 29]

Nayar teaches the controlling of the camera by a motion detector as described in the preferred embodiment of Figure 6. Nayar teaches an alternative embodiment where a human user controls the camera (Col 7 Lines 27-48, Fig. 2). Nayar is silent on the use of a motion detector and Human user for controlling the camera.

Egnal teaches a similar system to Nayar wherein a camera is controlled by a motion detector (Paragraph [0038], Fig. 1). Egnal further teaches the use of a Human user input for controlling a camera when multiple motion detectors are used (Paragraph [0077]). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the Human user input of Egnal with the system of Nayar in order to define priority to motion detectors when multiple motion detectors are used, as taught by Egnal (Paragraph [0077]).

[claim 30]

Nayar teaches the imager is a low resolution imager compared to the camera (Col 3 Lines 17-22).

Claims 23 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nayar and Egnal in view of US Patent 6,830,38 to Kajino et al.

[claim 23]

Nayar and Egnal teach the system as shown above for claim 22. Nayar and Egnal are silent on the camera comprising a dome.

Kajino teaches a controllable camera comprising a dome (Abstract, Col 9 Lines 22-35). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the controllable camera of Nayar and Egnal within a dome as Kajino teaches the use of a dome in a preferred embodiment of a controllable camera (Col 9 Lines 22-35).

[claim 26]

Nayar and Egnal teach the system as shown above for claim 22. Nayar further teaches the imager is a ccd as shown above for claim 5 (Col 10 Line 56). Nayar and Egnal are silent on the use of a cmos imager.

Kajino teaches cmos and ccd imagers may both be used for cameras (Col 5 Lines 3-8). It would have been obvious to one of ordinary skill in the art at the time of the invention to use a cmos instead of a ccd as the imager for Nayar and Egnal as Kajino teaches cmos and ccd are known imagers for cameras (Col 5 Lines 3-8).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent 5,434,617 to Bianchi.

Art Unit: 2621

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERICK REKSTAD whose telephone number is (571)272-7338. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on 571-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Erick Rekstad  
Examiner  
AU 2621  
(571) 272-7338  
[erick.rekstad@uspto.gov](mailto:erick.rekstad@uspto.gov)

